# PosterBOX3

# Installation Guide for 701946-6WLRP1, -6WSRP1



#### Recommended tools:

- Measuring tape
- 2. Wire strippers
- 3. Drill
- 4. Screwdriver



#### **Recommended supplies:**

- 1. UL Listed 18 AWG (1 mm<sup>2</sup>), 2 conductor, PVC jacketed, NEC type PLTC cable (can be purchased from SloanLED® in 100-foot (30,48-meter) rolls)
- 2. Cable tie downs (plastic with double-sided tape for mounting)
- 3. 4 in (101,6 mm) nylon zip ties
- 4. UL Listed wire nuts (IDEAL P/N #30-072 Blue), or 3M<sup>™</sup> Scotchlok<sup>™</sup> connectors, or appropriate UL Listed electrical connectors
- 5. Conduit and conduit connectors (water tight if necessary)
- 6. 1/2 in (13 mm) electrical locknuts
- 7. #8 (M4) pan head sheet metal screws or 5/32 in (4 mm) aluminum rivets

**CAUTION:** Turn off power to sign before inspecting or removing existing light source. Power must remain off while installing LED product.

**ATTENTION :** Coupez l'alimentation générale du panneau avant d'intervenir ou de retirer la source lumineuse existante. L'alimentation générale doit être coupée tout au long de l'installation du kit de remplacement en LED. **CAUTION:** Luminaire should be positioned so that prolonged staring into luminaire at a distance closer than 12.7 in (322 mm) is not expected.

WARNING: Connect Red striped wire of LED modules (+) to Red wire of power supply (+). Connect White wire of LED modules (-) to Black wire of power supply (-). Reverse polarity connections may damage the LEDs and will void product warranty. **NOTE:** All materials removed must be disposed of in accordance with applicable local, state, and federal laws.

### **Retrofit Installation**

**Scope:** This procedure is designed to aid in installation of SloanLED's PosterBOX<sup>™</sup> 3 illumination product and power supply products. Skilled tradespeople familiar with general construction, electrical, and sign installation techniques should do the installation. Licensed electricians should provide all installation and hook-up of both primary and secondary input/outputs of power supply. All installation and hook-up should be done in accordance with all National and Local codes and permits. In no way is this document intended to construe warranty or fitness of use of products described, nor is it intended to provide safety instruction for those installing product.

Field installation of this LED retrofit kit into a sectional sign is subject to acceptance of local inspection authority. The UL Classification mark on this LED retrofit kit requires kit to be installed in a UL Listed sign only.

### **Remove Existing Lighting Products**

- 1. Make sure power is off. Have a licensed electrician disconnect and remove all ballasts.
- 2. Remove existing lighting products.
- 3. Any existing holes in sign that will not be used for new installation should be patched to avoid water damage. Openings smaller than ½ in (13 mm) in diameter may be sealed with silicone. Openings larger than ½ in (13 mm) in diameter require a metal patch secured by screws or rivets and sealed with silicone. **Continue with step 1 of new installation.**



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# **New Installation**



1. Measure sign box to determine quantities of PosterBOX 3 (see Power Supply capacity table on page 3).



**TIP:** For best results, space modules adjacent to each other using built-in module spacer. For best performance in a single-sided box, mount modules on returns, near rear wall of box ( $\sim$ .5 - .75" [1 - 2 cm]). For a double-sided sign box, mount modules in center of returns.



2a. Secure modules to sides of sign box using #8 (M4) pan head sheet metal screws or 5/32 in (4 mm) aluminum rivets.



2b. If desired, double-stick tape can be used to mount modules. Before mounting, clean mounting surfaces inside of sign box with rubbing alcohol and allow to dry for proper tape adhesion.



3. **Connections:** Modules may be connected in series or parallel. Modules should not be looped to create a closed circuit. Cap all unused, exposed wire ends.



 Mount Power Supply: Identify primary wires, secondary wires, and location of mounting tabs.



5. Units may be mounted in any orientation using mounting tabs.



6. Connect primary: CAUTION! Have a licensed electrician connect primary.



7. **Connect to power supply:** Using UL Listed electrical connectors, daisy chain product as required and connect to power supply.



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## Layout Guidelines

It's recommended to test LED density in a sample cabinet to evaluate brightness, uniformity, and color. If you have questions or require assistance in testing, please contact your SloanLED Customer Service Representative.



Secondary class 2 cables do not require conduit per NEC 2014 Articles 725.121 through 725.135. Seal all sign and wall penetrations with silicone to avoid water damage.

### 24 VDC Power Supply Capacity Table for PosterBOX 3

	Input		Output		Maximum Units per Power Supply*		*Combination of units must not exceed maximum power
Part Number	Nominal Input Voltage	Input Current	Power Output	Output Current	6WLRP1	6WSRP1	supply output.
24 VDC Power Supply (701895-24C)	100-240 V	1.4 A	100 W	4.2 A	6	6	<b>NOTE:</b> PosterBOX 3 is not dimming compatible.
Compact 24/40 W (410175)	100-277 V	0.6 A	40 W	1.67 A	2	2	
Capacities based on 90% of power supply output.			Power used per unit in Watts:		14.0 W	7.2 W	

NOTE: Do not combine power supply outputs. Each 24 V circuit must be limited to power supply output rating. For North American installations, a power supply that meets NEC Class 2 specifications is required.

# **Extension of Power Supply Leads**

If longer lead wire from power supply to LED product is needed, an extension can be used. Extension should be kept as short as possible, i.e., under 15 ft use 18 AWG UL Listed PLTC (4.6 m for 1 mm<sup>2</sup> PLTC) or under 50 ft use 14 AWG UL Listed PLTC (15.2 m for 2.5 mm<sup>2</sup> PLTC).

# Troubleshooting

Check connection from power supply lead to first module. Make sure polarity of connections made at power supply lead and any jumper wire is correct. Power supply outputs should be connected RED-TO-RED STRIPED (+) and BLACK-TO-WHITE (-).			
Check output voltage of power supply using a voltmeter. Output voltage should be DC 24.0 V $\pm$ 0.5 V. If there is no output voltage, have a licensed electrician check input voltage. Make sure power supply is connected correctly and getting primary power. If power supply is connected properly and getting primary power and there is still no output voltage, try a different power supply.			
If power supply is getting primary power and modules don't light, there may be a short in secondary wiring. Check all connections and cap all loose wires.			
The primary cause of a portion of a PosterBOX 3 leg not lighting or lighting intermittently is a bad connection or reverse polarity connection between modules that light and modules that don't light. Check this connection.			
oes not light, but all PosterBOX 3 is designed so if one module fails, it will not cause entire sign or leg to go out. If one module does not light, but all other in leg do, replace this module with a new one.			



PosterBOX 3 is covered by CN200680037992.9, EP0890059, EP06812715.8, JP08-535482, NL1030161C2, US12089720 and patents pending.

Green Signage

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